APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/002,838	11/14/2001	Marc W. Kauffman	019396-002000US	3646

			EXAMINER
20350	7590	07/05/2005	BUI, KIEU OANH T

TOWNSEND AND TOWNSEND AND CREW, LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

ART UNIT	PAPER NUMBER
2611	

DATE MAILED: 07/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/002,838	KAUFFMAN ET AL.
	Examiner	Art Unit	
	KIEU-OANH T. BUI	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-34* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some *   c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments with respect to claims 1-34 have been considered but are moot in

view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> *(a) A patent may not be obtained though the invention is not identically disclosed or
> described as set forth in section 102 of this title, if the differences between the subject
> matter sought to be patented and the prior art are such that the subject matter as a whole
> would have been obvious at the time the invention was made to a person having ordinary
> skill in the art to which said subject matter pertains. Patentability shall not be negatived
> by the manner in which the invention was made.*

3.   Claims 1-28 and 30-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Leatherbury et al. (U.S. Patent No. 6,763,025 B2/or "Lea" hereinafter) in view of Pecus et

al.(US Patent 6,886,029 B1).

Regarding claim 1, Lea discloses "a method for distributing a content object over a

network system" (Fig. 1, and col. 1/lines 5-12), the method comprising step of "detecting a

request to obtain the content object from one of a plurality of content providers coupled to a

network that uses a first transport protocol", i.e., communication medium 108 provides the user

or subscriber a bi-directional communication for requesting the content object from the headend

such as video-on-demand service (Fig. 1, and col. 6/lines 15-34 & col. 11/lines 1-55 as the user

uses his set top box for ordering the service and the headend detects this request for service as

more on col. 7/lines 38-59); "receiving at least a portion of the content object at the node from

the one of the plurality of content providers", i.e., the content object is received at node 107 (Fig.

1, col. 7/lines 38-59) and then to a hub 105; and "transporting the content object between the

node and a content receiver with a second transport protocol, wherein the first transport protocol

is different from the second transport protocol", i.e., a separate upstream channel is dedicated as

a first transport protocol from the user to the headend, and a second transport protocol, which is

different from the first transport protocol, in any of many different formats can be used for

transporting the content object from the headend or the node back to the user (col. 7/line 38 to

col. 8/line 17 & col. 8/lines 48-65 for forward band and return band or upstream and downstream

addressed).

Applicants argue, by amending the claim language, that Lea does not teach the further

steps of "redirecting the request to a node of the network different than the content provider" and

then "storing the content object at the node"; however, such a technique is known in the art. In

fact, Lea does discloses the upstream signals or the requests from the subscriber are to the node

107 (refer to col. 7/lines 38-48), yet Lea does not mention the object content is storing at the

node. However, Pecus does teach an exact same technique as to provide a node 500, which is

different from the content provider 100 (refer to Fig. 1 of Pecus), and the node 500 contains

multimedia servers for storing and delivering the downloaded content from the content provider

100 and/or Network Operation Center 300 via satellite 400 to the subscribers/end users within

the local areas (refer to Pecus, col. 7, line 64 to col. 8/line 26). Therefore, it would have been

obvious to one of ordinary skill in the art at the time the invention was made to modify Lea's

system with Pecus' disclosed technique in order to store the object content at the node, different

than the content provider, before delivering the content to the subscriber. The motivation here is

to have a local multimedia server as suggested by Pecus and to have information and data as

close as possible to the users for either live broadcasting or non-live streaming services as well as

video on demand for later delivering to the end users.

As for claim 2, in further view of claim 1, Lea further discloses "wherein the node stores

at least a portion of the content object for use by a plurality of content receivers", i.e., data

stream in packets and segments (as illustrated in Figs. 6A & 7A) and being stored at least some

or all at the buffer storage (col. 13/line 60 to col. 14/line 12); and see claim 1 above for storing

contents at the node.

As for claim 3, in further view of claim 1, Leas further discloses "wherein the

transporting step further comprises steps of selecting a channel on a conductor with multiple

channels corresponding to frequency ranges" (col. 8/lines 34-60 for multiple channels according

to different frequency ranges are selecting or allocated accordingly for forward band);

"multiplexing a plurality of content objects into a data stream; and modulating the data stream

onto a carrier frequency within the channel", i.e., a time division multiplexing technique is used

for multiplexing multiple content objects into a data stream and modulating the data stream on to

a carrier frequency within the channel for transport (col. 7/line 60 to col. 8/line 33).

As for claim 4, in further view of claim 1, Lea further discloses "comprising a step of

communicating to the content receiver information that indicates how to filter the content object

from the incoming information", i.e., control information on how to filter is delivered form the

headend to the content receiver or the set top box at user location 108 (col. 14/line 12-64 on

details on this process is done).

As for claim 5, Lea discloses "wherein the content object comprises at least one of audio

data and video data" (col. 7/lines 60-63).

As for claim 6, Lea further discloses "wherein: the content object is encoded in a first format at the one of the plurality of content providers, the method further comprising: before transporting the content object, transcoding, at the node, the content object from the first format to a second format different from the first format" (col. 6/line 46 to col. 8/line 15 for different sources, different types of transmission mediums, different formats can be used between the sources and the subscribers, and the downstream signals are provided to the node 107 –Fig. 1–– before to the end users).

As for claim 7, Lea further discloses "wherein: the content object is encoded in at a first data rate at the one of the plurality of content providers, the method further comprising: before transporting the content object, transcoding, at the node, the content object from the first data rate to a second data rate different from the first data rate" (col. 2/line 56 to col. 3/line 15 & col. 7/line 60 to col. 8/line 33 for different formats and different data stream rates addressed as for fixed or variable sized frames, packets or cells, and the downstream signals are provided to the node 107 –Fig. 1–– before to the end users).

As for claim 8, Leas discloses "wherein: the content object is encoded in a first format for the first transport protocol, the content object is encoded in a second format for the second transport protocol, and the first format is different from the second format" (col. 6/line 46 to col. 8/line 15 for different sources, different types of transmission mediums, different formats can be used between the sources and the subscribers).

As for claim 9, in view of claim 1, Leas shows "wherein: the content object is encoded at a first data rate for the first transport protocol, the content object is encoded at a second data rate for the second transport protocol, and the first data rate is different from the second data rate" (col. 2/line 56 to col. 3/line 15 & col. 7/line 60 to col. 8/line 33 for different formats and different data stream rates addressed as for fixed or variable sized frames, packets or cells).

As for claim 10, Leas discloses "wherein the transporting step comprises a step of coupling the content object to at least one of a hybrid fiber/coaxial plant, a hybrid fiber/twisted pair plant and a wireless plant" (Fig. 1, and col. 1/line 15-col. 2/line 27).

As for claim 11, in view of claim 1, Leas shows "wherein the second transport protocol comprises an MPEG-2 transport protocol" (col. 4/lines 6-43).

As for claim 12, in view of claim 1, Leas discloses "wherein the second transport protocol comprises packetized content object constituents in a multiplexed data stream where the constituents are distinguished within the multiplexed data stream with program identifiers and are reconstituted into the content object in synchronization using embedded time stamps" (Fig. 6A, and col. 16/line 24 to cool. 18/line 49 for details on packets with its program identifiers, synchronization using embedded time reference in pointers in using time division de-multiplexing of dedicate time windows corresponding to upstream channel slots within each physical channel).

As for claims 13 and 14, Leas discloses "wherein the network comprises an Internet protocol packet network to transport content objects separate from the Internet" and "wherein the network comprises the Internet" (Fig. 1, and col. 2/line 35 to col. 3/line 48 for the Internet and internet protocol packet network).

Regarding claims 15-19, these claims for "a content distribution system for coupling content between a content provider and a content receiver, the content distribution system comprising: a node that relays a content object that originated from the content provider and stores portions of content objects in at least one of a cache and a file system; a network coupling the content provider to the node, wherein the network uses a first transport protocol; a data channel coupling the node to the content receiver, wherein content object is transported with the data channel using MPEG-2 transport protocol" with same limitations are rejected for the reasons given in the scope of claims 1-14 as already disclosed in details above, with the teaching of Pecus for storing content object to servers at the node as disclosed by Pecus.

Regarding claims 20-26, these claims for "a method for distributing a content object over a network system, the method comprising step of detecting a request for the content object associated with one of a plurality of content providers coupled to a network that uses a first transport protocol; sending the content object from one of the plurality of content providers to a cache with the network; and transporting the content object between the cache and a content receiver with a second transport protocol different from the first transport protocol", with a cache regarding same as a buffer storage as disclosed earlier, are rejected for the reasons given in the scope of claims 1-14 as already disclosed in details above.

As for claims 27-28 and 30-32, in further view of claims 1, 15 and 20 above, these claims refer to the use of a cable operator for transporting the content object from a node to the headend, and Pecus also teaches this feature, refer to Pecus (Fig. 4 and col. 11/line 35 to col. 12/line 38 as NOC oversees the operation and transmission between the headend and nodes).

As for claims 33-34, these limitations are already addressed in claims 7-11 above.

4.   Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Leatherbury et al.

in view of Pecus et al., as in claim 1, and further in view of Brodigan et al. (US Patent 6,380,971

B1).

Regarding claim 29, Lea and Pecus do not further mention the use of a video digital

subscriber line (VDSL) set top or a plurality of them for receiving the content from the node;

however, this is known in the art since if a VDSL drop line is used or applied, a compatible set

top box such as a VDSL set top should be included. In fact, Brodigan teaches to use a VDSL set

top as a test device in testing the network setting and arrangement for VDSL services (Brodigan,

Fig. 1, and col. 1/line 45 to col. 2/line 10 for a background on VDSL, and col. 3/line 24 to col.

4/line 36 as the STB needs to be equipped to handle VDSL services and signals). Therefore, it

would have been obvious to one of ordinary skill in the art at the time the invention was made to

modify Lea and Pecus with a VDSL set top as taught by Brodigan in order to receive and

communicate with the node or headend in VDSL services.

Conclusion

5.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

6.   **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9306, (for Technology Center 2600 only)

7.   Any inquiry concerning this communication or earlier communications from the examiner

should be directed to Kieu-Oanh Bui whose telephone number is (571) 272-7291. The examiner

can normally be reached on Monday-Friday from 9:00 AM to 6:30 PM, with alternate Fridays

off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Christopher Grant, can be reached on (571) 272-7294.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kieu-Oanh Bui
Primary Examiner
Art Unit 2611

KB
May 27, 2005